

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1(currently amended). A short-action firearm having an elongate chamber and bolt assembly comprising a tubular chamber and a bolt, selectively slidable longitudinally in a sliding direction between a retracted unlocked position and an extended locked position, said bolt providing a locked bolt face when said bolt is in said locked position, said chamber having a first end adjacent to said locked bolt face and a second end defined by a case mouth recess sized for operably receiving a cartridge with a projectile of a specific diameter within a range from 0.22 to 0.30 inch, said chamber being capable of withstanding internal gas pressures of at least about 65,000 psi and being sized to matingly engage said cartridge so as to enable said cartridge to fire in said chamber with sufficient propellant to produce an internal gas pressure of at least 50,000 psi and to operably withstand said pressure, said bolt being capable of inserting said cartridge into said chamber, said chamber having a first portion of substantially cylindrical shape adjacent to said first end and a second portion of a narrower substantially cylindrical shape adjacent to said second end, and a shoulder portion interconnecting said first portion and said second

portion, said chamber having an overall length measured from said locked bolt face to said second end of said chamber, said first portion having a first portion inner diameter of at least about 0.53 inch at a location where said first portion interconnects with said shoulder portion, said overall length having a ratio to said first portion inner diameter at said location of no more than about 3.5, said first portion having a first portion length extending between said locked bolt face and said shoulder portion, said first portion length having a ratio to said first portion inner diameter at said location of no more than about 3, said chamber being sized for operably receiving a cartridge free of any protrusion on said cartridge extending radially outwardly beyond said cylindrical shape of said first portion of said chamber.

2(original). The firearm of claim 1, said shoulder portion extending at an angle of less than 40° with respect to a longitudinal axis of said chamber.

3(original). The firearm of claim 2, said shoulder portion extending at an angle of at least 30° with respect to said longitudinal axis.

4(original). The firearm of claim 1, said shoulder portion extending at an angle of about 35° with respect to a longitudinal axis of said chamber.

5(original). The firearm of claim 1 wherein said first portion length is less than 1.5 inch.

6(original). The firearm of claim 1 wherein said first portion length has a ratio to said first portion inner diameter of no more than about 2.5.

7(original). The firearm of claim 1 wherein said bolt has an extractor sized for operably gripping a rim portion of said cartridge having an outer rim diameter greater than 0.5 inch.

8(original). The firearm of any one of claims 1-7 and 11, including said cartridge cooperatively engaged with said chamber for firing.

9(original). The firearm of any one of claims 1-7 and 11 wherein said bolt has an extractor sized for operably gripping a rim portion of said cartridge having an outside diameter substantially no less than said first portion inner diameter at

said location so as to insure reliable bolt operation of said firearm.

10(original). The firearm of any one of claims 1-7 and 11 wherein said bolt has an extractor adjacent to said bolt face, and a channel oriented transversely to said sliding direction of said bolt through which a rim portion of said cartridge is movable transversely to said sliding direction into gripping engagement by said extractor before said cartridge is inserted into said chamber.

11(canceled). The firearm of claim 1, said case mouth recess being sized for operably receiving a cartridge with a projectile of a specific diameter within a range from 0.22 to 0.30 inch.

12(currently amended). A short-action firearm having an elongate chamber and bolt assembly comprising a tubular chamber and a bolt, selectively slidable longitudinally in a sliding direction between a retracted unlocked position and an extended locked position, said bolt providing a locked bolt face when said bolt is in said locked position, said chamber having a first end adjacent to said locked bolt face and a second end defined by a case mouth recess sized for operably receiving a cartridge with a projectile of a specific diameter within a range

from 0.22 to 0.30 inch, said chamber being capable of withstanding internal gas pressures of at least about 65,000 psi and being sized to matingly engage said cartridge so as to enable said cartridge to fire in said chamber with sufficient propellant to produce an internal gas pressure of at least 50,000 psi and to operably withstand said pressure, said bolt being capable of inserting said cartridge into said chamber, said chamber having a first portion of substantially cylindrical shape adjacent to said first end and a second portion of a narrower substantially cylindrical shape adjacent to said second end, and a shoulder portion interconnecting said first portion and said second portion, said chamber having an overall length measured from said locked bolt face to said second end of said chamber, said first portion having a first portion inner diameter at a location where said first portion interconnects with said shoulder portion, said overall length having a ratio to said first portion inner diameter at said location of no more than about 3.5, said first portion having a first portion length extending between said locked bolt face and said shoulder portion, said first portion length having a ratio to said first portion inner diameter at said location of no more than about 3, said bolt having an extractor sized for operably gripping a rim portion of said cartridge having an outer rim diameter greater than 0.5 inch, said chamber being sized for operably receiving a cartridge free of any protrusion on said cartridge extending radially outwardly

beyond said cylindrical shape of said first portion of said chamber.

13(original). The firearm of claim 12, said shoulder portion extending at an angle of less than 40° with respect to a longitudinal axis of said chamber.

14(original). The firearm of claim 13, said shoulder portion extending at an angle of at least 30° with respect to said longitudinal axis.

15(original). The firearm of claim 12, said shoulder portion extending at an angle of about 35° with respect to a longitudinal axis of said chamber.

16(original). The firearm of claim 12 wherein said first portion length is less than 1.5 inch.

17(original). The firearm of claim 12 wherein said first portion length has a ratio to said first portion inner diameter of no more than about 2.5.

18(canceled). The firearm of claim 12, said case mouth recess being sized for operably receiving a cartridge with a

projectile of a specific diameter within a range from 0.22 to 0.30 inch.

19(original). The firearm of any one of claims 12-18, including said cartridge cooperatively engaged with said chamber for firing.

20(original). The firearm of any one of claims 12-18 wherein said bolt has an extractor sized for operably gripping a rim portion of said cartridge having an outside diameter substantially no less than said first portion inner diameter at said location so as to insure reliable bolt operation of said firearm.

21(original). The firearm of any one of claims 12-18 wherein said bolt has an extractor adjacent to said bolt face, and a channel oriented transversely to said sliding direction of said bolt through which a rim portion of said cartridge is movable transversely to said sliding direction into gripping engagement by said extractor before said cartridge is inserted into said chamber.

22(new). A cartridge for firing in a mating short-action firearm chamber, said cartridge having a projectile with a diameter within a range from 0.22 to 0.30 inch and an elongate

tubular case, having a first end defining a substantially circular base with an annular rim and groove, capable of operably withstanding, and having sufficient propellant to fire at, an internal gas pressure of at least 50,000 psi when in said chamber, said case having a second end defining a mouth for insertably receiving said projectile, said case having a first portion of substantially cylindrical shape adjacent to said first end and a second portion of a narrower substantially cylindrical shape adjacent to said second end, and a shoulder portion interconnecting said first portion and said second portion, said case having an overall length extending between said first end and said second end, and said first portion having a first portion diameter of at least about 0.53 inch at a location where said first portion interconnects with said shoulder portion, said overall length having a ratio to said first portion diameter at said location of no more than about 3.5, said first portion having a first portion length extending between said first end and said shoulder portion, said first portion length having a ratio to said first portion diameter of no more than about 3.

23(new). The cartridge of claim 22, said shoulder portion extending at an angle of less than 40° with respect to a longitudinal axis of said cartridge.

24(new). The cartridge of claim 22, said shoulder portion extending at an angle of at least 30° and less than 40° with respect to a longitudinal axis of said cartridge.

25(new). The cartridge of claim 22, said shoulder portion extending at an angle of about 35° with respect to a longitudinal axis of said cartridge.

26(new). The cartridge of claim 22 wherein said first portion length is less than 1.5 inch.

27(new). The cartridge of claim 22 wherein said first portion length has a ratio to said first portion diameter of no more than 2.5.

28(new). The cartridge of claim 22 wherein said rim has an outer rim diameter greater than 0.5 inch.

29(new). The cartridge of any one of claims 22-28, said cartridge being free of any protrusion extending radially outwardly beyond said cylindrical shape of said first portion of said case.

30(new). The cartridge of any one of claims 22-28, said rim having an outer rim diameter substantially no less than

said first portion diameter at said location so as to insure reliable bolt operation of a firearm.

31(new). The cartridge of any one of claims 22-28, said case being capable of withstanding said internal gas pressure of at least 50,000 psi when in said chamber without permanent deformation of said groove longitudinally of said case.

32(new). A cartridge for firing in a mating short-action firearm chamber, said cartridge having a projectile with a diameter within a range from 0.22 to 0.30 inch and an elongate tubular case, having a first end defining a substantially circular base with an annular rim and groove, capable of operably withstanding, and having sufficient propellant to fire at, an internal gas pressure of at least 50,000 psi when in said chamber, said case having a second end defining a mouth for insertably receiving said projectile, said case having a first portion of substantially cylindrical shape adjacent to said first end and a second portion of a narrower substantially cylindrical shape adjacent to said second end, and a shoulder portion interconnecting said first portion and said second portion, said case having an overall length extending between said first end and said second end, and said first portion having a first portion diameter at a location where said first portion interconnects with said shoulder portion, said overall length

having a ratio to said first portion diameter at said location of no more than about 3.5, said first portion having a first portion length extending between said first end and said shoulder portion, said first portion length having a ratio to said first portion diameter of no more than about 3, said rim having an outer rim diameter greater than 0.5 inch and said cartridge being free of any protrusion extending radially outwardly beyond said cylindrical shape of said first portion of said case.

33(new). The cartridge of claim 32, said shoulder portion extending at an angle of less than 40° with respect to a longitudinal axis of said cartridge.

34(new). The cartridge of claim 32, said shoulder portion extending at an angle of at least 30° and less than 40° with respect to a longitudinal axis of said cartridge.

35(new). The cartridge of claim 32, said shoulder portion extending at an angle of about 35° with respect to a longitudinal axis of said cartridge.

36(new). The cartridge of claim 32 wherein said first portion length is less than 1.5 inch.

37(new). The cartridge of claim 32 wherein said first portion length has a ratio to said first portion diameter of no more than 2.5.

38(new). The cartridge of any one of claims 32-37, said rim having an outer rim diameter substantially no less than said first portion diameter so as to insure reliable bolt operation of a firearm.

39(new). The cartridge of any one of claims 32-37, said case being capable of withstanding said internal gas pressure of at least 50,000 psi when in said chamber without permanent deformation of said groove longitudinally of said case.